

# A Synzyme That Yields Myoglobin-Like Activity

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The goal of this project is to prepare metal-complexes that can perform catalytic reactions. Specifically the the metal-centers will be contained within a bioinspired peptide-PNA scaffold. It was initially intended to use Mn-porphyrins as oxidation catalysts, however, these proved to be far too delicate and rapidly decomposed under oxidative conditions. Instead we found that with slight modifications of the scaffold a peptide-PNA conjugate could be produced that reversibly bound  $O_2$ . Furthermore, some selectivity for  $O_2$  over both NO and azide could be achieved. This has practical implications for the production of synthetic blood.

